## REMARKS

Initially, applicant would like to thank the Examiner for the very helpful and courteous personal interview he conducted with applicant's undersigned representative, inventor Hisashi Kurota, representative Shigeru Maruyama, and interpreter Izumi Suzuki-Myers on February 19, 2003, despite the unusually large snowstorm which closed the US Patent & Trademark Office on February 18, 2003. Discussed during the interview were: most of the above amendments; the commercial significance of applying the strippable paint protective film to the automobile body prior to mounting of the engine and functional parts to the automobile body during the assembly process; and the advantages of the claimed invention over the method(s) disclosed in US Patent 5,281,436 to Swidler. No particular agreement was reached, however.

The instant Supplemental Amendment is being submitted in conjunction with the Preliminary Amendment dated December 2, 2002, and specifically as a modified formal version of the Proposed Supplemental Amendment submitted in conjunction with the interview on February 19, 2003.

Upon entry of the present proposed Amendment, the claims in the application are claims 14-16, 19, 20, 27, 30-33 and 36-46, of which claims 14, 19 and 20 are independent and of which claims 14-16, 19 and 36 have been withdrawn from consideration by the Examiner as directed to a non-elected invention. New claims 45-46 are drawn to the elected invention. The Commissioner is hereby authorized to charge $18.00 to Deposit Account No. 50-0744 in the name of Carrier, Blackman & Associates, P.C., in payment of the fee for presentation of a 21st claim. A duplicate copy of this sheet is attached.

In the above amendments, claim 20 is amended to more specifically define the method of the invention involves the manufacture of the automobile body in which panel parts are press-formed from a sheet metal and the parts are welded together to form an automobile body, and that at least the assembling is carried out while the protective film of the strippable paint remains

coated on the painted surface of the paint-finished automobile, claim 43 is further amended to add the term –sufficiently-- before the "long time", term "strippable" is changed to --peelable-- throughout the claims, new claim 45 defines that the method further involves shipping the manufactured vehicle and that the inspection and shipping steps are also carried out with the protective film on the painted surface, and new claim 46 further defines that the protective film formed in the peelable paint coating step has a sufficient thickness to protect the painted surface of the paint-finished automobile body against scratches during the assembling step. The specification is amended to provide express antecedent basis for the term "peelable" used in the claims and for the limitation of claim 46.

Applicant respectfully submits that the proposed amendments are fully supported by the original disclosure, including the disclosure of the 7th and 8th embodiments and the discussion at page 13 of the Lapguard product used in forming protective films, and that no new matter is introduced into the application by the amendments.

Specifically in regard to the term "peelable" as introduced into the application, applicant notes that the product Lapguard prepared by Kansai Paint Co., Ltd., Japan, which is discussed at page 13, lines 20-24 of the original specification as being used to form the protective film of the invention, creates films which can be removed by peeling, rather than being dissolved using an alkaline aqueous solution as with the protective coatings disclosed in the Swidler patent. Moreover, at the time parent application 08/398,881was filed ( March 6, 1995) and even at the time the (non-priority) corresponding Japanese patent applications were filed (September 6, 1993) the peelable nature of protective films formed using Lapguard was known. As evidence of such known characteristic, applicant encloses herewith a performance report on and a catalog of "LAPGUARD L" (which corresponds to the Lapguard product discussed in the application), together with a verified English translation of these documents. As shown and described in the documents, the report is dated August 18, 1992, and was provided by Kansai Paint Co., Ltd. to Honda, the owner/assignee of the present application. Additionally, it is disclosed that the LAPGUARD L can be peeled off by hand or with use of a high pressure, and that the protective films formed using the product remain on the vehicles through storage and transportation and have a service life (protection time) of up to six months.

35 USC 112 Issue

In the amendment of December 2, 2002, applicant deleted all of the terms objected to by the Examiner, except "long time" as used in relation to the stabilizing step. Additionally, the term –sufficiently-- is now added before "long time" in the above amendment. Applicant respectfully submits that claim 43 as now amended is adequately definite within the guidelines of 35 USC §112, second paragraph, and that persons skilled in the art would clearly understand the meaning of "sufficiently long time" as used in claim 43 when considered in light of the full disclosure of the stabilizing step as presented in the specification. Accordingly, it is again respectfully requested that the rejection of claim 43 as indefinite be reconsidered and withdrawn.

**Non-anticipation of Claim 20**

The Rejection

In the Office Action of July 2, 2002, claim 20 was rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under 35 USC §103(a) as being unpatentable over US Patent 5,281,436 (Swidler).

Applicant's Response

Initially, applicant respectfully submits that prior to the present invention there were no methods, used or proposed, with the same object identified and the effects attained as applicant has done with the claimed invention, i.e., provision of a method which is capable of manufacturing an automobile while protecting a paint-finished surface of the automobile from being damaged or deteriorated in quality during the assembly process including mounting of an engine and functional parts to the vehicle body, and similarly that neither Swidler nor any other prior art achieves the significant advantages which are achieved by the claimed invention. Also, to the best of applicant's knowledge, no other entity has succeeded in realizing the claimed method to date, except applicant.

Applicant again respectfully submits that the vehicle assembly method of claim 20 is neither anticipated by nor obvious in view of Swidler because the claim specifically involves the

manufacture of a vehicle in which a step of forming a protective film of strippable paint on a paint-finished surface of an vehicle is carried out after the automobile body is paint-finished, but before the step of assembling an engine and functional parts thereto, and because this claim is amended above to more specifically define the formation of the automobile body from sheet metal as part of the assembly method and that the protective film is "strippable", whereas Swidler's disclosed method does not include or suggest any of these aspects of the invention.

Clearly, Swidler does not disclose any such vehicle assembly method. Rather, at his column 5, Swidler discloses one method (lines 8-36) in which his acrylic based composition is applied to a surface such as the exterior painted portion of a vehicle in a thickness of 0.1 – 10 mils (preferably 1 mil.) and then allowed to *air dry at ambient temperature and humidity* (conditions not suitable for vehicle assembly, where time is of the essence), another method in which vehicles to be *transported* are provided with protective coating of his composition just prior to shipping, and that his composition may be applied to fully manufactured vehicles to protect them from deleterious *environmental conditions and graffiti*. Further, while Swidler briefly and generally discusses in the background of his patent that a vehicle may be subjected to a variety of injuries during the assembly process, and that various solutions have been proposed to protect the vehicles' finish during assembly, he never actually discloses a vehicle assembly process or any specific use of his dissolvable coatings during any particular step of a vehicle assembly process, nor would the full, fair teachings of Swidler suggest to the artisan that his coating is suitable for protecting a painted finish of the vehicle body during an assembly step of mounting an engine and functional parts to the body.

Additionally, claim 20 now incorporates the feature of claim 26, i.e., the step of finished product inspection following the assembly step, which is not taught or suggested by Swidler, noting that Swidler never mentions finished product inspection, nor does he in any way suggest the possibility or desirability of conducting a finished product inspection after his protective coating is applied to a vehicle.

Further, Swidler's composition forms a protective coating which is removable using an alkaline aqueous solution, contrary to the peelable protective film as now defined in claim 20. This distinction is significant because a peelable protective film according to the invention

provides important advantages over Swidler's dissolvable coatings, including: the fact that it is not necessary for car dealers and the like to maintain an inventory/supply of alkaline aqueous solution and special equipment for removing the protective film; the peelable film is easier and quicker to remove; and the peelable film creates less environmental concerns in terms of disposal.

Based on the foregoing, the rejection of claim 20 under 35 USC §102(b) as being anticipated by or, in the alternative, under 35 USC §103(a) as being unpatentable over Swidler is believed to be overcome, and accordingly it is respectfully requested that the rejection be reconsidered and withdrawn.

**Non-obviousness of the claimed invention**

The Rejections

In the Office Action of July 2, 2002, the Examiner has maintained his rejections of claims 20, 26, 27, 30-33 and 37-42 under §103(a) as unpatentable over Swidler in view of the state of the art or Nelson (US Patent 4,907,533), while the Examiner has also indicated that he is not persuaded by the Declarations of Mr. Tojo and Mr. Kurota under 37 CFR §1.132 submitted with the prior Amendment-E because the subject matter of the Declarations would have been readily apparent to one of ordinary skill in the art, as set forth in item 8 of the present Office Action.

Applicant's Response

Applicant respectfully such rejections, especially in light of the above amendments, and submits that the claimed vehicle assembly method as defined in each of the present claims is clearly patently distinct over the teachings of Swidler, Nelson and the state of the art, because none of the applied teachings discloses or suggests a vehicle assembly method in which a *peelable* protective film is applied to the paint finished surface of a vehicle body during a vehicle assembly process prior to mounting an engine and functional parts to the vehicle body, whereas the claimed method achieves very significant commercial advantages over conventional practices and has proven commercially successful, as discussed below.

I. Swidler

Again, while in the background to his invention Swidler briefly mentions that vehicles may be damaged during and after assembly, the actual methods disclosed by Swidler do not involve or remotely suggest vehicle assembly with mounting of an engine and functional parts to a paint finished body or a *peelable* protective film as discussed above, nor would persons skilled in the art consider the claimed method obvious in view of Swidler's teachings. In this regard, for example, Swidler's discussion (col. 1, lines 29-46) of disposable plastic or canvas covers which create solid waste problems and are not suitable for mass shipments or typical driving, does not correspond to the heavier, reusable covers involved in a vehicle assembly method, such as discussed in relation to Figs. 7-8 of the present application. Rather, the disposable covers as discussed by Swidler correspond to adhesively applied plastic films (typically white in color) which are used extensively today for protecting fully manufactured vehicles as they are shipped to dealers and the like from manufacturing plants, and which are removed and discarded once the vehicles arrive at their destination.1

Further, as set forth in the attached copies of documents relating to LAPGUARD L, a proper thickness of the peelable film is not less than 30 μm, and preferably from 50-80 μm. Conversely, according to Swidler, col. 5, lines 25-28, his coatings have a thickness in the range of about 0.1 to about 10 mils (2.54 – 254 μm), preferably about 0.5 – 2 mils (12.7-50.8 μm), with a preferred thickness of about 1 mil (25.4 μm). The range of thicknesses disclosed by Swidler includes many thicknesses (his most preferred thickness being one) below a suitable/proper thickness for a peelable paint of the invention used during a vehicle assembly process.

The unobviousness of the claimed invention over Swidler's disclosure is strongly reflected by the several *significant advantages* attained by the present invention over conventional practices, most of which advantages relate to the fact that the peelable protective film is efficiently applied during the vehicle assembly process and can remain on the vehicle through final assembly, inspection, shipping and storage up to the point where the vehicle is delivered to the customer. The advantages include those discussed in the application and below:

1) Because the peelable paint coating is applied during the vehicle assembly process, the application is somewhat automated on the vehicle assembly line, the coating composition is

1 Incidentally, the peelable coatings of the invention offer significant advantages over the adhesively applied films even in relation to shipping the manufactured vehicles to dealers and the like as discussed infra at page 14.

initially applied by nozzle onto paint finished surfaces and then manually spread with rollers and the like, which is much more efficient than application of, for example, the adhesive plastic films conventionally used to protect vehicles during shipment.

2) By virtue of the peelable paint coating formed during the assembling process prior to mounting the engine and functional parts to the vehicle body, the paint-finished surface of the automobile is protected against damage during such process (claim 20), during final inspection and shipping of the manufactured vehicle (new claim 45), and afterwards up to the point where the finished vehicle is delivered to the ultimate customer (see the attached copy of an April 12, 1996 Honda Technical Information).

3) The assembly process, especially the final assembly when the engine and functional parts are mounted to the vehicle body, is heavily involved in manual operations such that there is great chance for the paint finished surface to be scratched by contact with workers or tools, or to be otherwise contaminated by grease and other foreign matter from the workers' clothing, gloves, tools, etc. The peelable paint applied during the assembly process according to the invention protects the paint finished surface against all of these injuries.

4) During the final assembly process, heavy reusable protective covers are used to protect the paint finished surface from contact with the workers, tools and parts mounted to the vehicle. The use of the heavy reusable covers is very labor intensive (requiring manual application of the covers, manual removal covers and prompt transportation of the removed covers back to application stage for reuse), while the reusable covers themselves can cause scratches to the paint finished surfaces as they are fitted and removed. With the claimed method of the invention, use of the reusable covers is significantly (but not entirely at the present time) reduced/replaced by the peelable protective film, thus greatly reducing the expense of using the reusable covers, and the peelable film of the invention functions better than the covers in preventing damage to the surfaces.

5) Within the manufacturing plant, after the vehicle is fully assembled, it must be carefully inspected, measured, etc. for any flaws. This final inspection process creates a great amount of dust and other airborne contaminants which alight on the vehicle and may damage the paint finished surface. The peelable paint film of the invention remains on the vehicle after

assembly to protect the finish during the final inspection, which is possible because the film is clear.

6) After the vehicle is manufactured and finally inspected, it is stored and shipped to a dealer or other destination. Conventionally, the vehicle's paint finished surfaces are protected from damage during storage and transportation (primarily) by adhesively applied ,disposable plastic films as discussed above, and (to a much lesser extent) by a coating dissolvable with an alkaline aqueous solution, such as taught by Swidler. There are several problems or disadvantages associated with these conventional protections, e.g., typically the manufactured vehicles are stored outside of the manufacturing plant for some period before shipping so that the surface temperature must be adjusted (hotter or colder) for the adhesive films or dissolvable coating to be applied, for removal of the dissolvable coating dealers are required to have a large supply of alkaline solution in stock and to acquire expensive removal equipment, the adhesive films are typically black or white, which gives a bad appearance so that dealers tend to promptly remove same once the vehicles are received and subsequently wash the new vehicles when delivered to customers and such washing tends to cause small scratches which take away from the vehicles' appearance, the adhesive films are labor intensive (and hence expensive) to use, the adhesive films must be disposed of when removed, the adhesive films must typically be trimmed to fit any particular surface, thus creating waste, etc. The peelable paint applied during the manufacturing process substantially avoids all of these problems and disadvantages, e.g., the peelable paint is efficiently applied during the manufacturing process and remains on through shipping, the peelable coating is clear so that there is no incentive for the dealer to remove the film before the vehicle is delivered to the customer, there is little waste in application of the peelable film (99.4-99.6% efficiency), etc.

7) The cost involved for using the peelable protective films according to the invention is approximately ½ the cost of using the conventional adhesive plastic films.

Also, it should be noted that the industry has largely rejected/replaced use of Swidler's coatings with the adhesively applied plastic films for protecting the paint finished surfaces of manufactured vehicles during shipping / transportation.

Secondary Evidence of Non-Obviousness

As previously argued, and described in the Affidavit of Hisashi Kurota (one of the inventors), the present invention has proven to be highly commercially successful for the assignee/owner Honda Giken Kogyo Kabushiki Kaisha (Honda) in terms of manufacturing efficiency and economy, while the patentability of the claimed invention has been recognized by the Japanese Patent Office, which has issued patent on all four of the priority Japanese applications. As further evidence of the invention's commercial success, applicant respectfully submits that licensing of the invention from HONDA to several third parties is now under negotiation. Of major interest to potential licensees is the tremendous cost savings (again approximately 50%) achieved using the peelable film of the invention over the conventional adhesive plastic films used by many/most manufacturers for protecting vehicles during shipping. A copy of a document related to the negotiations was provided to the Examiner during the interview on February 19, 2003.

As has long been recognized by the courts,

> Evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decision maker remains in doubt after reviewing the art.

Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538, 218 USPQ 871, 879 (Fed. Cir. 1983), cited with approval in Vulcan Engineering Co. v. Fata Aluminum, 278 F.3d 1366, 61 USPQ2d 1545 (Fed. Cir. 2002).

In the present matter, the significant commercial success of the claimed invention is indicated not only by the substantial cost savings realized by Honda in its own manufacturing facilities (as discussed in the Affidavit of Hisashi Kurota included with the Amendment of December2, 2002) and the improved protection for the paint finished vehicle surface as discussed above, but also by the fact of current licensing negotiations with third parties, indicating respect for the invention in the industry.

II. Swidler and Nelson

Relative to the rejection of claims 20, 26, 27, 30-33, 37, and 39-42 based on Swidler in view of Nelson et al. (US Patent 4,907,533), applicant respectfully submits that each of the present claims is clearly patentably distinct over the Swidler and Nelson references, because: Nelson fails to overcome the basic deficiencies of Swidler as discussed above relative to claim 20; persons of ordinary skill in the art would not consider it obvious to modify Swidler's simple method of air drying strippable paint to instead include a multiple stage drying as disclosed by Nelson relative to first class paint finishes because the full, fair disclosures of the references teach away from the proposed modification; and the references also fail to disclose or suggest other features of the invention including the stabilizing step.

Specifically regarding the proposed modification, Swidler's disclosure focuses on use of the strippable paint as a *temporary* protection for paint finished surfaces and the like, wherein the strippable paint is simply applied and dried to the exterior of automobiles under ambient conditions and later simply removed with an aqueous solution after the automobiles have been transported to a given destination. Swidler indicates that important advantages of his invention are that it can be applied and removed "quickly, easily, cheaply and safely." Quite differently, Nelson's disclosed two stage method specifically pertains to formation of high gloss Class A paint finished surfaces "... having as high a quality of finish as possible" because this improves the marketability of the vehicle. On the other hand, Nelson distinguishes such Class A Surfaces from finishes on other surfaces of the vehicles, e.g., surfaces which are not readily visible to the end user, indicating that such other surfaces "... only require a finish sufficiently good to protect the vehicle's surface from the elements", and specifically indicates that his two stage drying method would not be used in relation to surfaces which are not Class A.

Given that Swidler's strippable paint coatings are not Class A Surfaces, but are only temporary protective films which are never seen by the persons purchasing the vehicles, applicant respectfully persons skilled in the art would not consider it obvious to hypothetically modify Swidler's process to involve two-stage drying of a coated strippable paint based on the teachings of Nelson because the references provide no motivation for such a modification. Nelson teaches away from use of the two stage drying method on surfaces which are not Class A,

let alone the temporary protective films of Swidler which are never seen by the automobile purchaser, while the proposed modification is contrary to the simplicity which Swidler emphasizes in his process. Inasmuch as the references *teach away from* the proposed modification, they are an indication of the patentability of the claimed method.

Also, reference is made to the Exhibits D1-D5 showing and E provided during the interview on February 19, 2003 showing the partial drying achieved using IR radiation and final drying achieved with hot, blown air according to a commercial embodiment of the invention, and to Exhibit E showing the results of a comparative investigation made by applicant involving various drying methods, and showing that the claimed two stage drying provides exceptional results for the peelable paint of the invention.

Relative to the claimed stabilizing step, applicant respectfully submits that neither reference discloses or suggests a stabilizing step as defined in the present claims when this term is reasonably interpreted in accordance with the disclosure of the stabilizing step in the present specification, i.e., the disclosed stabilization step involves exposing the applied paint to a controlled atmosphere over a sufficiently long period of time, prior to partial/preliminary drying step. In Swidler's process, once the strippable paint is applied to a vehicle, it is simply permitted to dry in a *single continuous operation* through exposure to ambient atmosphere over a period of time, such that there are not multiple separate steps of stabilizing, partially drying and finally drying, nor any special booths or controlled atmosphere associated therewith. Even in the one modification to his method disclosed by Swidler, i.e., addition of a larger percentage of alcohol as solvent when ambient temperatures are lower, the simple continuous drying operation is maintained . On the other hand, in Nelson's method, he indicates that his apparatus (IR lamps, and separate hot air blowers) may be used to set, dry and/or cure an applied coating depending on what treatment is desired, and he never discusses any stabilizing step between the application of a paint onto a surface and the treatment of same with his apparatus. Rather, Nelson indicates at his col. 13, lines 20-35 that a freshly painted object is directly treated using his apparatus. Thus, any hypothetical combination of the applied references would not achieve the claimed invention involving the stabilizing step. On the other hand, the stabilizing step and particular drying temperatures as claimed, have never been shown to be obvious matters of design choice, etc.

Relative to the Examiner's comments on the declarations of Mr. Tojo and Mr. Kuroto , applicant respectfully submits the following. To any extent the comments are based on a premise that Swidler discloses or suggests the claimed method involving replacement of the conventional re-usable protective covers during a specific vehicle manufacturing step (assembling an engine and functional parts to the vehicle) with a strippable paint coating, applicant respectfully traverses same because Swidler never discloses or suggests this feature. Rather, Swidler's statement is specifically directed to disposable covers prohibitively expensive for mass shipments or typical driving, such as the adhesive plastic films commonly used today. The claimed invention goes far beyond Swidler's disclosure. As such, the claimed method involving an application of the strippable paint in not contemplated by Swidler or any other prior art (as reflected by the continuing widespread use of re-usable protective covers during vehicle assembly processes), and the significant advantages achieved by the present invention are not "readily apparent to one skilled in the art" or the claimed method would have been common practice in the industry long ago (e.g., Swidler's application was filed 10 years ago).

Again, to applicant's knowledge, applicant is the only entity who has practiced or is practicing the claimed method anywhere in the world, although there are current negotiations to license the method as discussed above.

III. Applicant's Admitted Prior Art in View of Swidler and State of the Art

Relative to the rejection of claims 20 and 38 based on applicant's admitted prior art (AAPA)in view of Swidler and state of the art, applicant respectfully traverses such rejection based on the foregoing comments regarding the deficiencies of Swidler relative to claim 20, which are not overcome by AAPA or the state of the art. Again, none of the evidence of record, including AAPA and state of the art, discloses or suggests the object of the claimed invention, the specific features set forth in the claims which achieve such object, or the significant advantages which are achieved by the claimed invention in comparison to conventional practices.

Based on the foregoing, applicant respectfully submits that the rejections of claims 20, 26, 27, 30-33 and 37-42 under 35 USC §102(b) and/or §103(a) are overcome in relation to the claims as presently amended, and accordingly it is respectfully requested that the rejections be reconsidered and withdrawn.

New Claims 45-46

Applicant respectfully submits that new claims 45-46 are patentable over the references and evidence of record based on the arguments set forth above relative to claim 20, as well as on the merits of the additional features set forth in these new claims.

Conclusion

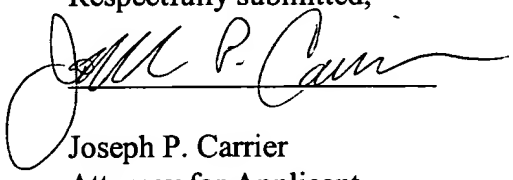
Based on the foregoing, as well as the arguments and evidence previously presented, applicant respectfully submits that the Examiner's rejections set forth in the Office Action of July 2, 2002 are overcome, and that present claims 20, 27, 30-33 and 37-46 are allowable over the references of record, whether considered singly or in combination.

The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

If the Examiner is not fully convinced of all of the claims now in the application, applicant respectfully requests that he telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable consideration is respectfully requested.

Respectfully submitted,



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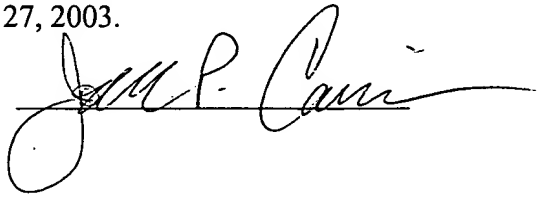

Dated: March 27, 2003
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